

AMENDMENT TO THE CLAIMS

1. (presently amended) A method for removing condensables from a gas stream, the method comprising the steps of:

(A) inducing the ~~natural~~ gas stream to flow at supersonic velocity through a conduit of a supersonic inertia separator and thereby causing the fluid to cool to a temperature that is below a temperature/pressure at which the condensables will begin to condense, forming separate droplets and/or particles;

(B) separating the droplets and/or particles from the gas; and

(C) collecting the gas from which the condensables have been removed, characterized in that the supersonic inertia separator is located in the vicinity of ~~the a~~ natural gas production well for the separation of condensables from the natural gas stream produced through said well and wherein in step (B) a swirling motion is induced to the supersonic stream thereby causing the condensables to flow to a radially outer section of a collecting zone in the stream, followed by the subsonic or supersonic extraction of the condensables into an outlet stream from the radially outer section of the collecting zone, and wherein the swirling motion is imparted by a wing placed in the supersonic flow region.

2. (canceled)

3. (canceled)

4. (presently amended) The method of claim 12, further comprising the step of: creating a shock wave in the gas stream that is upstream of the collecting zone and downstream of the location where the swirling motion is imparted.

5. (presently amended) The method of claim, 4 wherein the shock wave is created by inducing the gas stream ~~of fluid~~ to through a diffuser.

6. (previously amended) flow The method of claim 1, further comprising adding a hydrate inhibition component to the outlet stream extracted from the radially outer section of the collecting zone.

7. (presently amended) A device for removing condensables from natural gas according to ~~the a~~ method comprising the steps of: inducing the natural gas stream to flow at supersonic velocity through a conduit of a supersonic inertia separator and thereby causing the fluid to cool to a temperature that is below a temperature/pressure at which the condensables will begin to condense, forming separate droplets and/or particles; separating the droplets and/or particles from the gas; and collecting the gas from which the condensables have been removed, characterized in that the supersonic inertia separator

is located in the vicinity of the a natural gas production well for the separation of condensables from the natural gas stream produced through said well of claim 1, the device comprising:

an acceleration section wherein gas is accelerated to a supersonic velocity;
a swirl imparting section that imparts a swirling motion to the gas;
a collection zone from which a gas stream containing reduced content of condensables is removed; and
a radially outer section of the collecting zone with a radially outer section from which the condensables can be collected, characterized in that the device is located in the vicinity of the wellhead of a natural gas production well and is designed for the separation of condensables from a natural gas stream produced through said well; and
a shock wave initiator downstream of the swirl imparting section.

8. (canceled)

9. (previously amended) The device of claim 8 wherein the shock wave initiator is a diffuser, located so that the shock wave is upstream of the collecting zone.

10. (previously amended) The device of claim 9, wherein the acceleration section comprises a Laval-type inlet of the conduit, and wherein the smallest cross-sectional flow area of the diffuser is larger than the smallest cross-sectional flow area of the Laval-type inlet, and wherein the swirl imparting section that imparts a swirling motion to the stream comprises a wing device.

11. (previously amended) A wellhead assembly comprising a device as claimed in claim 7, downstream of the wellhead.

13. (currently amended) The device of claim 7, wherein the radially outer section of the collecting zone debouches into an annular first outlet for collecting a condensables enriched fluid stream and a central section of the collecting zone debouches into a tubular second outlet for collecting a condensables depleted fluid stream, characterized in that the tubular second outlet is a substantially formed by a substantially straight tubular which remains substantially co-axial to the annular first outlet along at least a substantial portion of the tubular's length.

14. (previously amended) The device of claim 13, wherein the annular first outlet has in downstream direction a cylindrical or diverging shape.

15. (previously amended) The device of claim 14, wherein the tubular second outlet has in downstream direction a cylindrical or diverging shape and provides a co-axial vortex finder duct within the annular first outlet.